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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,242	02/08/2005	Sang Hyuk Kang	05-241	8167

34704 7590 10/24/2007
BACHMAN & LAPOINTE, P.C.
900 CHAPEL STREET
SUITE 1201
NEW HAVEN, CT 06510

EXAMINER

THOMPSON, JR, OTIS L

ART UNIT	PAPER NUMBER
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4183

MAIL DATE	DELIVERY MODE
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10/24/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/527,242

Applicant(s)

KANG, SANG HYUK

Examiner

Otis L. Thompson, Jr.

Art Unit

4183

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5 is/are rejected.
- 7) ☒ Claim(s) 4, 6 and 7 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____
- ☐ Notice of Informal Patent Application
- ☐ Other: ____

DETAILED ACTION

Objections

1. Oath/Declaration is objected to because applicant did not sign and date the form.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwata et al. (US 2004/0114516 A1) in view of Towler (US 2004/0047594 A1).

Iwata et al. discloses a packet scheduling apparatus for scheduling traffic in which a premium packet (higher priority motion part packet), such as a voice or a motion picture, belonging to premium traffic which requires real time characteristic and a low priority packet (lower priority texture part packet) belonging to low priority traffic which does not require the real time characteristic (Paragraph 13, Lines 1-6). Iwata et al. discloses that the packet output section (Figure 1, Label 5) reads pointer data from the corresponding queue in the packet queue group 2 based on information in the queue to be read next from the scheduler 32, reads the corresponding packet from the packet

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buffer 6, and transmits the read packet (Paragraph 31, Lines 4-8). This disclosure from Iwata et al. is interpreted to mean that the packets contained in the buffer (substream) are sequentially transmitted from the packet output section.

Iwata et al. does not specifically disclose a threshold for a predetermined priority, however, Towler discloses a threshold priority level that varies with the predetermined priority level (Paragraph 35, Lines 2-9). Towler discloses that when the value of the variable threshold priority level is changed, so as to affect decisions whether messages of particular priority levels are accepted into the queue, corresponding analyzer modules 50 which have a registered interest in that type of message, are informed, step 404 (Paragraph 32, Lines 1-6). This disclosure from Towler is interpreted to mean that threshold is updated as the data throughput is reported from the terminal.

Therefore, it would have been obvious to one skilled in the art during the time of the invention to incorporate the teachings of Towler into the invention of Iwata et al. in order to continuously stabilize at a maximum proportion of messages (packets) that can be handled without overload, while always analyzing messages (packets) corresponding to the most critical parameters of the transport stream (Towler, Abstract).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Iwata et al. in view of Towler, and further in view of Apostolopoulos (US 6,611,530 B1).

Iwata et al. discloses the claimed invention above, but lacks the teaching of an I-frame with even-numbered P-frames and odd-numbered P-frames.

However, Aspostolopoulos discloses an I-frame, even-numbered P-frames, and odd-numbered P-frames divided into separate streams (Figure 4) for the purpose of recovering a lost frame while taking into account scene changes (Column 6, Lines 21-22).

Therefore, it would have been obvious to one skilled in the art during the time of the invention to combine the teachings of Aspostolopoulos with the teachings of Iwata et al. and Towler in order to recover a lost frame while taking into account scene changes (Column 6, Lines 21-22).

Allowable Subject Matter

6. Claims 4, 6, and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Otis L. Thompson, Jr. whose telephone number is (571) 270-1953. The examiner can normally be reached on Monday to Thursday 7:30 am to 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on (571) 272-1184. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

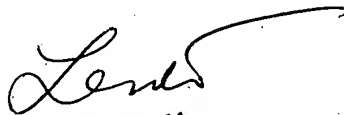
Art Unit: 4183

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Examiner Otis Thompson
AU 4183

October 9, 2007


Supervisory LENTRAN
PRIMARY EXAMINER
10/12/07

AUG 04 2005

PTO/SB/08B (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

Application Number	10/527,242
Filing Date	March 8, 2005
First Named Inventor	Sang Hyuk Kang
Art Unit	
Examiner Name	
Attorney Docket Number	05-241

Sheet 1 of 1

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
/O.T./		Sujeong Choi, et al., "Substream-based out-of-sequence packet scheduling for streaming stored media", Copyright (C) 2004 Nurimedia Co., Ltd. '04-10 Vol. 29 No. 10C, pp. 1469-	
/O.T./		Sang H. Kang et al., "Effective Bandwidth Based Scheduling for Streaming Multimedia" Communication Networks Research Lab. Department of ECE, University of Seoul	

Examiner
Signature

/Otis Thompson, Jr./

Date
Considered

10/16/2007

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.